



DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS REGULATIONS BOARD
WASHINGTON, D.C. 20590

4396

[Docket No. HM-73; Amdts. 171-17, 173-69, 174-16, 175-9, 177-23]

DESIGN APPROVALS FOR RADIOACTIVE MATERIALS PACKAGES

The purpose of these amendments to the Hazardous Materials Regulations is to eliminate the present duplicative procedure for the issuance of special permits by DOT for type B, fissile, and large quantity radioactive materials packages which have been reviewed and approved by the U.S. Atomic Energy Commission (USAEC). The present regulations for these materials requires that the packages be reviewed and approved by the USAEC, prior to the issuance of a special permit by the DOT. This amendment will eliminate this second step. These amendments also establish and clarify the Department's procedures for issuance of competent authority certificates with respect to the regulations for the safe transport of radioactive materials, as established by the International Atomic Energy Agency (IAEA), hereinafter referred to as the IAEA Regulations. Essentially the IAEA Regulations provide for certain administrative approvals of radioactive materials package designs by the "competent national authority" of a country when the export-import of packages is involved. These approvals are known as competent authority certificates. The IAEA regulations also prescribe the information required to be submitted to the competent authority by petitioners, as well as the content of the certificates, and the requirements for exchange of such certificates between the countries involved.

On January 8, 1971, the Hazardous Materials Regulations Board published a notice of proposed rule making, Docket No. HM-73; notice No. 71-1 (36 FR 292), which initially proposed these amendments. After further consideration, it became apparent that several additional sections of the regulations needed clarification in order to fully implement a transition from the "Special Permit" issuances for radioactive materials to the "AEC approvals," as well as to describe the related requirements pursuant to IAEA competent authority certificate issuances. Accordingly, notice No. 71-1 was superseded by a second notice of proposed rule making in the same docket, HM-73 published in the FEDERAL REGISTER on November 20, 1971, as notice No. 71-30 (36 FR 22181). Concurrent proposed revisions to Title 10 CFR Part 71 were also published by the U.S. Atomic Energy Commission on the same date. Interested persons were invited to give their views and several comments were received by the Board. These comments were generally in support of the proposed amendments as were those on the notice.

One commenter stated that the proposed package approval procedures would lead to a duplication of effort and diverse interpretation of requirements by establishing various review groups within the USAEC. In fact, more than one package review and approval group already exists within the USAEC and these amendments recognize the approvals of any one of those USAEC groups. These amendments, however, reduce an existing duplication of effort by eliminating the requirements for issuance of a special permit by the Department. Amendments to the USAEC regulations (10 CFR Part 71) to be published soon in the FEDERAL REGISTER as well as changes to be made in that Commission's own operating rules (USAEC manual), will describe the implementation by the USAEC of the package approvals by the appropriate USAEC review group.

In these amendments, several minor changes have been made regarding the revalidation and furnishing of the IAEA competent authority certificates and the shipping paper information for export shipments of radioactive materials packages. As proposed in §§ 173.393a(a) (4) and 173.393b(a) (4), each shipper of a package described by an IAEA certificate would have been required to furnish a copy of the certificate to the competent authority of each country prior to the first export shipment. After reconsideration, the Board has modified this requirement to the effect that the shipper simply must insure that the proper certificate has been furnished, i.e., if the applicable certificate has already been supplied by another shipper, it will not be necessary for an additional copy to be furnished. Also, a requirement for the competent authority certificate to accompany each shipment of fissile class III (§ 173.393b(a) (5)) is redundant and inconsistent especially in view of the requirement in § 173.427(a) (5) (v) for certain specific shipping paper information on each fissile class III shipment. Accordingly, § 173.393b(a) (5) has been modified to require that shippers shall furnish competent authority certificates to carriers upon request. Concurrent with this, the shipping paper requirement in § 173.427(a) (5) (vi) is deleted.

A further change has been made with respect to the requirement for revalidation of foreign made and certified packages. As proposed in each earlier notice, the revalidation of foreign-made packages which had been certified by a foreign competent authority, and which contained less than a large quantity of nonfissile radioactive material, would not have been required by the U.S. competent authority. The principal requirement would have been for the furnishing of the applicable foreign certificate to the Department and a registration by

each shipper using such certificate. Upon further reconsideration, the Board feels that it would be desirable to maintain the degree of administrative control over foreign made and certified packages at the present level. Accordingly, a modification has been made to § 173.393b(a) to require that the certificate for all foreign-made packages be revalidated by the U.S. competent authority.

Several comments were received with respect to the proposed changes to 14 CFR Part 103. One commenter recommended that mention of required "Special arrangements" between shipper and carrier as made in proposed § 103.24(a) (1) should also be made in § 103.24(a) (2). The Board agrees and has amended § 103.24(a) (2), accordingly. Another commenter objected to the proposed prohibition of large quantities (also referred to as large radioactive sources) for carriage on passenger-carrying aircraft. The commenter noted that protection to the public is afforded by package integrity, and that a properly packaged large quantity shipment should present no more hazard than a properly packaged type A or B package. Although this comment has some merit in principle, the Board is of the opinion that the large radioactive source threshold is a practical and logical maximum delineating point for establishment of a quantity limit on passenger-carrying aircraft. It should be also noted in support of this opinion, that in the regulations of both IAEA and the International Air Transport Association (IATA), as well as in the domestic air tariff No. 6D provisions, the routine carriage of large sources of radioactivity on passenger-carrying aircraft is not permitted. Therefore, 14 CFR 103.19(d) has been added to impose this same requirement in the Federal Aviation Regulations.

Upon the effective date of these amendments, the Department will cease the issuance of new or amended special permits for those packages which have become subject to the USAEC approval requirements of § 173.393a. However, all existing DOT Special Permits will continue in effect until their stated expiration date. Prior to the expiration of any permit containing an IAEA certification clause, this clause will have to be replaced by a separate IAEA certification to be issued by the Department pursuant to § 173.393b. All persons concerned should submit petitions for such replacement certificates at least 45 days prior to the expiration date of the special permit.

Accordingly, 49 CFR Parts 171, 173, 174, 175, and 177 are amended as follows:

PART 171—GENERAL INFORMATION AND REGULATIONS

In § 171.7 paragraphs (c) (15) and (c) (16), (d) (10) and (d) (11) are added to read as follows:

§ 171.7 Matter incorporated by reference.

*) IAEA: International Atomic Energy Agency, Karntner Ring 11, Post Office Box 590, A-1011, Vienna, Austria (IAEA publications may be purchased in the United States from: Unipub, Inc., Post Office Box 433, New York, NY 10016).

(16) USAEC: U.S. Atomic Energy Commission, Washington, D.C. 20545. Regulations of the USAEC are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Other publications by the USAEC may be obtained from the National Technical Information Center, U.S. Department of Commerce, Springfield, Va. 22151.

(d) ***

(10) IAEA "Regulations for the Safe Transport of Radioactive Materials," 1967 edition, safety series No. 6.

(11) United States Atomic Energy Commission (USAEC).

(i) Title 10, Code of Federal Regulations, Part 71 is titled "Packaging of Radioactive Materials for Transport and Transportation of Radioactive Materials Under Certain Conditions."

PART 173—SKIPPER

(A) In Part 173 table of contents, §§ 173.393a and 173.393b are added to 1 as follows:

173.393a U.S. Atomic Energy Commission approved packages; standard requirements and conditions.

173.393b International shipments and foreign-made packages; standard requirements and conditions.

(B) Section 173.393a is added to read as follows:

§ 173.393a U.S. Atomic Energy Commission approved packages; standard requirements and conditions.

(a) In addition to the applicable requirements of the USAEC approval and Parts 170-189 of this subchapter, each shipper of a package containing radioactive material, which has been approved by the U.S. Atomic Energy Commission in accordance with § 173.394(b) (3), (c) (2), § 173.395(b) (2), (c) (2), § 173.396(b) (4), or § 173.396(c) (3), also shall comply with the following:

(1) Before the first shipment in a package approved by the U.S. Atomic Energy Commission for use by another person, each shipper shall register in writing with the USAEC, Division of Materials Licensing, his name and address, the name of the person to whom the USAEC approval was issued, and the approval number assigned to the package. Each shipper shall have a copy of the USAEC approval and the document referred to in the approval in his possession. Each shipment must be made in compliance with the terms and conditions of the approval;

(2) The outside of each package must be durably and legibly marked with the package identification marking indicated in the USAEC approval;

(3) Each shipping paper related to the shipment of this package must bear a notation of the package identification marking indicated in the USAEC approval;

(4) Before the first export shipment of the package, the shipper shall submit a copy of the applicable competent authority certificate applying to that package design to the competent national authority of each country into or through which the package will be transported, unless a copy has already been furnished to this party by another person. (Detailed requirements for the issuance and content of competent authority certificates are provided in marginal C-6 of the IAEA "Regulations for the Safe Transport of Radioactive Materials, safety series No. 6, 1967 edition," hereinafter referred to as the "IAEA Regulations." A list of the national competent authorities of each country is published annually by the IAEA.);

(5) Each package of fissile radioactive material must be marked with the numerical value for the transport index if the shipment is fissile class II. Any vehicle limitation indicated in the USAEC approval applies if the shipment is fissile class III; and

(6) For a fissile class III shipment the statement prescribed in § 173.427(a) (5) (v) must be included with the shipping papers.

(C) Section 173.393b is added to read as follows:

§ 173.393b International shipments and foreign-made packages; standard requirements and conditions.

(a) In addition to the other applicable requirements of Parts 170-189 of this subchapter, each shipper of a package containing radioactive material, for which a foreign competent authority certificate has been issued and revalidated pursuant to the IAEA regulations and § 173.394(b) (4), § 173.394(c) (3), § 173.395(b) (3), § 173.395(c) (3), § 173.396(b) (5), or § 173.396(c) (4), also shall comply with the following:

(1) Before the first shipment of the package, each shipper shall register in writing his identity and type of package with the Office of Hazardous Materials, U.S. Department of Transportation, Washington, D.C. 20590, furnishing a copy of the foreign certificate or revalidation thereof which is applicable to that package, unless a copy has already been furnished by another person;

(2) The outside of each package must be durably and legibly marked with the competent authority identification marking indicated on the certificate or revalidation;

(3) Each shipping paper related to the shipment of the package must bear a notation of the package identification marking indicated in the certificate or revalidation;

(4) Before the first export shipment of the package, the shipper shall furnish a copy of the applicable competent authority certificate applying to that package design and any required revalidation, to the competent national authority of each country through or into which the package will be transported, unless a copy has already been furnished by another person;

(5) The applicable competent authority certificates need not accompany the packages to which they relate. However, the shipper shall supply them carrier upon request; and

(6) For a fissile class III shipment, the statement prescribed in § 173.427(a) (5) (v) must be included with the shipping papers.

(b) The designated competent authority in the USA responsible for administering the requirements (Marginal C-6) of the International Atomic Energy Agency's (IAEA) "Regulations for the Safe Transport of Radioactive Materials," Safety Series No. 6, 1967 Edition, is:

Office of Hazardous Materials, U.S. Department of Transportation, Washington, D.C. 20590.

(c) Any request for a competent authority certificate required by the IAEA regulations must be submitted in writing to the address given in paragraph (b) of this section. This request should be in duplicate and must contain all the information required by the applicable subsection of Marginal C-6 of the IAEA regulations. Unless there is good reason for priority treatment, each request will be considered in the order in which it is received. To permit timely consideration, requests should be submitted at least 45 days prior to the requested effective date.

(D) In § 173.394 paragraphs (b) (3) and (c) (2) are amended; paragraphs (b) (4) and (c) (3) are added to read as follows:

§ 173.394 Radioactive material in form.

(b) ***

(3) Any other Type B packaging approved by the U.S. Atomic Energy Commission.

(4) Any other Type B packaging which meets the pertinent requirements in the 1967 regulations of the International Atomic Energy Agency, and for which the foreign competent authority certificate has been revalidated by the Department.

(c) ***

(2) Any other Type B packaging which meets the pertinent requirements for large quantities of radioactive materials in the regulations of the U.S. Atomic Energy Commission (10 CFR Part 71) and is approved by the U.S. Atomic Energy Commission.

(3) Any other Type B packaging which meets the pertinent requirements for large quantities of radioactive materials in the 1967 regulations of the International Atomic Energy Agency, and for which the foreign competent authority certificate has been revalidated by the Department.

(E) In § 173.395 paragraph (b) (2) and (c) (2) are amended; paragraphs (b) (3) and (c) (3) are added to read as follows:

§ 173.395 Radioactive material in normal form.

(b) ***

(2) Any other Type B packaging approved by the U.S. Atomic Energy Commission.

(3) Any other Type B packaging which meets the pertinent requirements in the 1967 regulations of the International

Energy Agency, and for which foreign competent authority certificate has been revalidated by the Department.

Any other Type B packaging for quantities of radioactive materials meets the pertinent requirements of the U.S. Atomic Energy Commission (10 CFR Part 71) and approved by the U.S. Atomic Energy Commission.

Any other Type B packaging which meets the pertinent requirements for quantities of radioactive materials in the 1967 regulations of the International Atomic Energy Agency, and for which the foreign competent authority certificate has been revalidated by the Department.

In § 173.396 paragraphs (b) (4) and (5) are amended; paragraphs (b) (5) (4) are added; paragraph (d) and following are canceled; the introductory text of paragraph (g) and paragraph (g) (2) are amended; paragraph (g) is added to read as follows:

§ 173.396 Fissile radioactive material.

Any other Type A or B packaging for fissile radioactive materials which meets the pertinent standards for packaging in the regulations of the U.S. Atomic Energy Commission (10 CFR Part 71), and is approved by the U.S. Atomic Energy Commission.

Any other Type A or B packaging for fissile radioactive materials which meets the pertinent requirements in the 1967 regulations of the International Atomic Energy Agency, and for which the foreign competent authority certificate has been revalidated by the Department.

Any other Type B packaging which meets the standards for packaging fissile radioactive materials in the regulations of the U.S. Atomic Energy Commission (10 CFR Part 71), and is approved by the U.S. Atomic Energy Commission.

Any other Type B packaging which meets the pertinent requirements for radioactive materials in the 1967 regulations of the International Atomic Energy Agency, and for which the foreign competent authority certificate has been revalidated by the Department.

[Canceled].

A fissile class III shipment may be made only in accordance with subparagraph (1), (2), or (3) of this paragraph, in accordance with other procedures authorized by the Department. The transport controls must provide nuclear safety and must be carried out by the shipper or carrier, as appropriate to protect against loading, storing,

or transporting of that shipment together with any other fissile material.

(2) Except for shipments by aircraft, transportation under escort by person in a separate vehicle, with the escort having the capability, equipment, authority, and instructions to provide administrative controls adequate to assure compliance with this paragraph; or

(3) Transportation in a transport vehicle containing no other packages of radioactive material which are required to bear one of the "Radioactive" labels described in § 173.414. Specific arrangements must be effected between shipper and carrier, with instructions to that effect issued with the shipping papers.

(G) In § 173.427 paragraph (a) (5) (v) is amended; (a) (5) (vi) is canceled as follows:

§ 173.427 Shipping papers.

(a) * * *

(5) * * *

(v) For a fissile radioactive material, the fissile class of the package. For a fissile class III shipment, the additional notations:

Warning—Fissile Class III Shipment. Personnel Handling and Stowing this Shipment Must be Advised to not Load More Than * * * Package per Vehicle. (* * * to be replaced by appropriate number.) In any Loading or Stowage Area, this Shipment Must be Segregated by at Least 20 Feet From Other Packages Bearing Radioactive Labels.

If a fissile class III shipment is to be transported by water the supplementary notation must also include the following statement:

For Shipment by Water Only One Fissile Class III Shipment is Permitted in a Hold.

(vi) [Canceled].

PART 174—CARRIERS BY RAIL FREIGHT

In § 174.586 paragraph (h) (3) is added to read as follows:

§ 174.586 Handling hazardous materials.

(h) * * *

(3) Each fissile class III radioactive material shipment (as defined in § 173.389 (a) (3) of this subchapter) must be transported in accordance with one of the methods prescribed in § 173.396 (g) of this subchapter. The transport controls must be adequate to assure that no fissile class III shipment is transported in the same transport vehicle with any other fissile radioactive material shipment. In loading and storage areas each fissile class III shipment must be segregated by a distance of at least 20 feet from other packages required to bear one of the "radioactive" labels described in § 173.414 of this subchapter.

PART 175—CARRIERS BY RAIL EXPRESS

In § 175.655 paragraph (j) (4) is added to read as follows:

§ 175.655 Protection of packages.

(j) * * *

(4) Each fissile class III radioactive material shipment (as defined in § 173.389 (a) (3) of this subchapter) must be transported in accordance with one of the methods prescribed in § 173.396 (g) of this subchapter. The transport controls must be adequate to assure that no fissile class III shipment is transported in the same transport vehicle with any other fissile radioactive material shipment. In loading and storage areas each fissile class III shipment must be segregated by a distance of at least 20 feet from other packages required to bear one of the "radioactive" labels described in § 173.414 of this subchapter.

PART 177—SHIPMENTS MADE BY WAY OF COMMON, CONTRACT, OR PRIVATE CARRIERS BY PUBLIC HIGHWAY

In § 177.842 paragraph (f) is added to read as follows:

§ 177.842 Radioactive material.

(f) Each fissile class III radioactive material shipment (as defined in § 173.389 (a) (3) of this subchapter) must be transported in accordance with one of the methods prescribed in § 173.396 (g) of this subchapter. The transport controls must be adequate to assure that no fissile class III shipment is transported in the same transport vehicle with any other fissile radioactive material shipment. In loading and storage areas each fissile class III shipment must be segregated by a distance of at least 20 feet from other packages required to bear one of the "Radioactive" labels described in § 173.414 of this subchapter.

This amendment is effective June 30, 1973. However, compliance with the regulations as amended herein is authorized immediately.

(Sec. 831-835, Title 18, United States Code, sec. 9, Department of Transportation Act, 49 U.S.C. 1657, title VI; sec. 902(h), Federal Aviation Act of 1958, 49 U.S.C. 1421-1430, 1472(h))

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W. F. REA III,
Rear Admiral, Board Member
for the U.S. Coast Guard.

JAMES F. RUDOLPH,
Board Member for the Federal
Aviation Administration.

ROBERT A. KAYE,
Board Member for the Federal
Highway Administration.

MAC E. ROGERS,
Board Member for the Federal
Railroad Administration.

NOTE: Incorporation by reference approved by the Director of the Federal Register February 9, 1973.

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